

## Refine Search

### Search Results -

Terms	Documents
L15 and surface and brak\$	20

Database:

US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

Search:

L16 and (first near2 control\$) and  
 (second near2 control\$)





### Search History

DATE: Saturday, February 19, 2005    [Printable Copy](#)    [Create Case](#)

<u>Set</u> <u>Name</u> side by side	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
<i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>			
<u>L16</u>	L15 and surface and brak\$	20	<u>L16</u>
<u>L15</u>	L14 and l8	21	<u>L15</u>
<u>L14</u>	l9 or l10 or l11 or l12 or L13	3023	<u>L14</u>
<u>L13</u>	180/197.ccls.	1226	<u>L13</u>
<u>L12</u>	303/139,163.ccls.	212	<u>L12</u>
<u>L11</u>	73/146.ccls.	983	<u>L11</u>
<u>L10</u>	303/117,152.ccls.	127	<u>L10</u>
<u>L9</u>	701/71-75,80.ccls.	791	<u>L9</u>
<u>L8</u>	L1 and (first near3 control\$) and (second near3 control\$) and (reduc\$ with threshold\$) and (friction\$ near4 coefficient)	74	<u>L8</u>
<u>L7</u>	L3 and (first near3 control\$) and (second near3 control\$)	0	<u>L7</u>
<i>DB=PGPB,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR</i>			
<u>L6</u>	L4 and (reduc\$ with threshold\$) and (friction\$ near4 coefficient)	1	<u>L6</u>

<u>L5</u>	L4 and (reduc\$ with threshold\$) and (friction\$ near2 coefficient)	1	<u>L5</u>
<u>L4</u>	L3 and (first near2 control\$) and (second near2 control\$)	119	<u>L4</u>
<u>L3</u>	(antiskid\$ or "anti-skid" with control\$) and @pd<=20021227	6697	<u>L3</u>
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR</i>			
<u>L2</u>	L1	2797	<u>L2</u>
<i>DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR</i>			
<u>L1</u>	(antiskid\$ or "anti-skid" with control\$) and @ad<=20021227	2797	<u>L1</u>

END OF SEARCH HISTORY

# Hit List

## Search Results - Record(s) 1 through 10 of 18 returned.

☐ 1. Document ID: US 6600987 B2

*no 2nd controller*

L19: Entry 1 of 18

File: USPT

Jul 29, 2003

US-PAT-NO: 6600987

DOCUMENT-IDENTIFIER: US 6600987 B2

TITLE: Apparatus and method for determining a road-wheel vibration of automotive vehicle, and apparatus and method for anti-skid control using the same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 2. Document ID: US 6385524 B2

*no 2nd*

L19: Entry 2 of 18

File: USPT

May 7, 2002

US-PAT-NO: 6385524

DOCUMENT-IDENTIFIER: US 6385524 B2

TITLE: Automotive brake control system with anti-skid braking device

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 3. Document ID: US 6178370 B1

L19: Entry 3 of 18

File: USPT

Jan 23, 2001

US-PAT-NO: 6178370

DOCUMENT-IDENTIFIER: US 6178370 B1

TITLE: Deceleration based antiskid brake controller with adaptive deceleration threshold

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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*cited*  
☐ 4. Document ID: US 6026343 A

L19: Entry 4 of 18

File: USPT

Feb 15, 2000

US-PAT-NO: 6026343

DOCUMENT-IDENTIFIER: US 6026343 A

TITLE: Anti-skid control system for automotive vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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*Cite* ☐ 5. Document ID: US 5799261 A

L19: Entry 5 of 18

File: USPT

Aug 25, 1998

US-PAT-NO: 5799261

DOCUMENT-IDENTIFIER: US 5799261 A

TITLE: Anti-skid control system for automotive vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 6. Document ID: US 5765657 A

L19: Entry 6 of 18

File: USPT

Jun 16, 1998

US-PAT-NO: 5765657

DOCUMENT-IDENTIFIER: US 5765657 A

TITLE: Traction control system for automotive vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 7. Document ID: US 5504680 A

L19: Entry 7 of 18

File: USPT

Apr 2, 1996

US-PAT-NO: 5504680

DOCUMENT-IDENTIFIER: US 5504680 A

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 8. Document ID: US 5407023 A

L19: Entry 8 of 18

File: USPT

Apr 18, 1995

US-PAT-NO: 5407023

DOCUMENT-IDENTIFIER: US 5407023 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 9. Document ID: US 5351779 A

L19: Entry 9 of 18

File: USPT

Oct 4, 1994

US-PAT-NO: 5351779

DOCUMENT-IDENTIFIER: US 5351779 A

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw De
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☐ 10. Document ID: US 5320422 A

L19: Entry 10 of 18

File: USPT

Jun 14, 1994

US-PAT-NO: 5320422

DOCUMENT-IDENTIFIER: US 5320422 A

TITLE: Slip control device for vehicle wheel

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw De
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L16 and (surfac\$ with friction\$)	18

Display Format:  [Previous Page](#)[Next Page](#)[Go to Doc#](#)

# Hit List

**Search Results** - Record(s) 11 through 18 of 18 returned.

☐ 11. Document ID: US 5286100 A

L19: Entry 11 of 18

File: USPT

Feb 15, 1994

US-PAT-NO: 5286100

DOCUMENT-IDENTIFIER: US 5286100 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Antiskid control apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 12. Document ID: US 5257857 A

L19: Entry 12 of 18

File: USPT

Nov 2, 1993

US-PAT-NO: 5257857

DOCUMENT-IDENTIFIER: US 5257857 A

TITLE: Antiskid brake system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 13. Document ID: US 5117361 A

L19: Entry 13 of 18

File: USPT

May 26, 1992

US-PAT-NO: 5117361

DOCUMENT-IDENTIFIER: US 5117361 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Anti-skid brake control apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draws	De
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☐ 14. Document ID: US 4900100 A

L19: Entry 14 of 18

File: USPT

Feb 13, 1990

US-PAT-NO: 4900100

DOCUMENT-IDENTIFIER: US 4900100 A

TITLE: Anti-skid brake control system with capability of eliminating influence of noise in derivation of wheel acceleration data

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 15. Document ID: US 4825371 A

L19: Entry 15 of 18

File: USPT

Apr 25, 1989

US-PAT-NO: 4825371

DOCUMENT-IDENTIFIER: US 4825371 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Anti-skid control system for motor vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 16. Document ID: US 4720794 A

L19: Entry 16 of 18

File: USPT

Jan 19, 1988

US-PAT-NO: 4720794

DOCUMENT-IDENTIFIER: US 4720794 A

TITLE: Apparatus for generating a reference signal in a brake control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 17. Document ID: US 4338670 A

L19: Entry 17 of 18

File: USPT

Jul 6, 1982

US-PAT-NO: 4338670

DOCUMENT-IDENTIFIER: US 4338670 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Method and apparatus for generating a control signal as a function of a plurality of intermediate control signals

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	FIGS	Draw. De
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☐ 18. Document ID: US 4323969 A

L19: Entry 18 of 18

File: USPT

Apr 6, 1982

US-PAT-NO: 4323969

DOCUMENT-IDENTIFIER: US 4323969 A

TITLE: Apparatus for generating a reference signal in a brake control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Keywords	Claims	EMC	Draw. Des
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Terms	Documents
L16 and (surfac\$ with friction\$)	18

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## Hit List

### Search Results - Record(s) 1 through 10 of 20 returned.

☐ 1. Document ID: US 6684147 B2

L16: Entry 1 of 20

File: USPT

Jan 27, 2004

US-PAT-NO: 6684147

DOCUMENT-IDENTIFIER: US 6684147 B2

**\*\* See image for Certificate of Correction \*\***

TITLE: Sliding integral proportional (SIP) controller for aircraft skid control

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 2. Document ID: US 6600987 B2

L16: Entry 2 of 20

File: USPT

Jul 29, 2003

US-PAT-NO: 6600987

DOCUMENT-IDENTIFIER: US 6600987 B2

TITLE: Apparatus and method for determining a road-wheel vibration of automotive vehicle, and apparatus and method for anti-skid control using the same

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 3. Document ID: US 6385524 B2

L16: Entry 3 of 20

File: USPT

May 7, 2002

US-PAT-NO: 6385524

DOCUMENT-IDENTIFIER: US 6385524 B2

TITLE: Automotive brake control system with anti-skid braking device

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 4. Document ID: US 6178370 B1

L16: Entry 4 of 20

File: USPT

Jan 23, 2001

US-PAT-NO: 6178370

DOCUMENT-IDENTIFIER: US 6178370 B1

TITLE: Deceleration based antiskid brake controller with adaptive deceleration threshold

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 5. Document ID: US 6026343 A

L16: Entry 5 of 20

File: USPT

Feb 15, 2000

US-PAT-NO: 6026343

DOCUMENT-IDENTIFIER: US 6026343 A

TITLE: Anti-skid control system for automotive vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 6. Document ID: US 5799261 A

L16: Entry 6 of 20

File: USPT

Aug 25, 1998

US-PAT-NO: 5799261

DOCUMENT-IDENTIFIER: US 5799261 A

TITLE: Anti-skid control system for automotive vehicles

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 7. Document ID: US 5765657 A

L16: Entry 7 of 20

File: USPT

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 8. Document ID: US 5504680 A

L16: Entry 8 of 20

File: USPT

Apr 2, 1996

US-PAT-NO: 5504680

DOCUMENT-IDENTIFIER: US 5504680 A

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 9. Document ID: US 5407023 A

L16: Entry 9 of 20

File: USPT

Apr 18, 1995

US-PAT-NO: 5407023

DOCUMENT-IDENTIFIER: US 5407023 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Drawings	Claims	FIGS	Drawings
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☐ 10. Document ID: US 5351779 A

L16: Entry 10 of 20

File: USPT

Oct 4, 1994

US-PAT-NO: 5351779

DOCUMENT-IDENTIFIER: US 5351779 A

TITLE: Slip control system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Drawings	Claims	FIGS	Drawings
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Terms

Documents

L15 and surface and brak\$

20

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### Search Results - Record(s) 11 through 20 of 20 returned.

☐ 11. Document ID: US 5320422 A

L16: Entry 11 of 20

File: USPT

Jun 14, 1994

US-PAT-NO: 5320422

DOCUMENT-IDENTIFIER: US 5320422 A

TITLE: Slip control device for vehicle wheel

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draws
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☐ 12. Document ID: US 5286100 A

L16: Entry 12 of 20

File: USPT

Feb 15, 1994

US-PAT-NO: 5286100

DOCUMENT-IDENTIFIER: US 5286100 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Antiskid control apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draws
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☐ 13. Document ID: US 5257857 A

L16: Entry 13 of 20

File: USPT

Nov 2, 1993

US-PAT-NO: 5257857

DOCUMENT-IDENTIFIER: US 5257857 A

TITLE: Antiskid brake system for vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draws
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☐ 14. Document ID: US 5117934 A

L16: Entry 14 of 20

File: USPT

Jun 2, 1992

US-PAT-NO: 5117934

DOCUMENT-IDENTIFIER: US 5117934 A

TITLE: Slip control system for vehicle and rough road detecting system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 15. Document ID: US 5117361 A

L16: Entry 15 of 20

File: USPT

May 26, 1992

US-PAT-NO: 5117361

DOCUMENT-IDENTIFIER: US 5117361 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Anti-skid brake control apparatus

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 16. Document ID: US 4900100 A

L16: Entry 16 of 20

File: USPT

Feb 13, 1990

US-PAT-NO: 4900100

DOCUMENT-IDENTIFIER: US 4900100 A

TITLE: Anti-skid brake control system with capability of eliminating influence of noise in derivation of wheel acceleration data

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 17. Document ID: US 4825371 A

L16: Entry 17 of 20

File: USPT

Apr 25, 1989

US-PAT-NO: 4825371

DOCUMENT-IDENTIFIER: US 4825371 A

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TITLE: Anti-skid control system for motor vehicle

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Draw. De
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☐ 18. Document ID: US 4720794 A

L16: Entry 18 of 20

File: USPT

Jan 19, 1988

US-PAT-NO: 4720794

DOCUMENT-IDENTIFIER: US 4720794 A

TITLE: Apparatus for generating a reference signal in a brake control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Drawings
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☐ 19. Document ID: US 4338670 A

L16: Entry 19 of 20

File: USPT

Jul 6, 1982

US-PAT-NO: 4338670

DOCUMENT-IDENTIFIER: US 4338670 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Method and apparatus for generating a control signal as a function of a plurality of intermediate control signals

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Drawings
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☐ 20. Document ID: US 4323969 A

L16: Entry 20 of 20

File: USPT

Apr 6, 1982

US-PAT-NO: 4323969

DOCUMENT-IDENTIFIER: US 4323969 A

TITLE: Apparatus for generating a reference signal in a brake control system

Full	Title	Citation	Front	Review	Classification	Date	Reference	Abstract	Claims	FIGS	Drawings
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Terms	Documents
L15 and surface and brak\$	20

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**End of Result Set**

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L5: Entry 1 of 1

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020002435  
PGPUB-FILING-TYPE: new  
DOCUMENT-IDENTIFIER: US 20020002435 A1

TITLE: Apparatus and method for determining a road wheel vibration of automotive vehicle, and apparatus and method for anti-skid control using the same

PUBLICATION-DATE: January 3, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ohtsu, Nobuyuki	Kanagawa		JP	

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
UNISIA JECS CORPORATION				03

APPL-NO: 09/ 885109    [PALM]  
DATE FILED: June 21, 2001

## FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	DOC-ID	APPL-DATE
JP	2000-196390	2000JP-2000-196390	June 29, 2000

INT-CL: [07] B60 T 8/58

US-CL-PUBLISHED: 701/71; 701/80  
US-CL-CURRENT: 701/71; 701/80

REPRESENTATIVE-FIGURES: 1

## ABSTRACT:

An apparatus for determining a road-wheel vibration for an automotive vehicle comprises wheel-speed sensors for detecting wheel speeds of each of road wheels, and a control unit which is configured to be electrically connected to the wheel-speed sensors for processing a wheel-speed data signal detected from each of the wheel-speed sensors. The control unit comprises a wheel acceleration calculating section for calculating a wheel acceleration and a wheel deceleration of each of the road wheels based on the wheel-speed data signal, a wheel acceleration cycle calculating section for calculating a wheel acceleration cycle of each of the road wheels, a vehicle deceleration calculating section for calculating a vehicle deceleration, a vibration detecting section for detecting a road-wheel vibration of the road wheel based on at least the wheel acceleration cycle, and a vibration